Arkansas Broadband Advisory Council

FIRST ANNUAL
BROADBAND POLICY RECOMMENDATIONS REPORT

January 20, 2009

TABLE OF CONTENTS

ARKANSAS BROADBAND ADVISORY COUNCIL
FIRST ANNUAL REPORT
January 20, 2009

1. Executive Summary:

In the 16 months since its Creation, Broadband Advisory Council activities have included 16 public meetings with 2 dedicated to input from Arkansas broadband stakeholders, a preliminary report to the Governor and General Assembly, 5 presentations made on the statewide broadband effort, participation in 8 national and state broadband events, development of a Council web site including links to 56 videos of Arkansans giving federal and state testimony on broadband (recorded by staff of Arkansas Chief Technology Officer Claire Bailey and by Suddenlink Communications), and review of an untold number of broadband-related news articles and broadband initiative publications from other states.

The Council recommends that broadband be treated as a critical infrastructure to our state on a par comparable to those of electricity and water. It is the Council's conclusion that state government should provide bi-partisan leadership to leverage broadband for economic development. Provisions of such an approach would include:

- Formally recognize broadband as "Critical Infrastructure".
- Create a Cabinet-Level Broadband Advocate for Arkansas.
- Commit to a two-phased Arkansas broadband effort.
- Encourage including broadband in county strategic economic development plans.
- Give priority to county strategic economic development plans that include regional broadband collaborations to assist in situations where counties cannot independently establish broadband business cases.
- Re-define the Arkansas minimum speed for broadband.

Funding and appropriation recommended by the Council include:

- $2.975 million per year in dedicated funding to Connect Arkansas.
- Fund Broadband Advocate and administrative support for that office.
- Appropriation of potential funding adequate to embrace possible broadband inclusion in the expected federal economic stimulus package(s).
- $47.5 thousand per year for activities of the Arkansas Broadband Advisory Council.

In comparison with other states we believe that Arkansas has initiated a strong approach for achieving statewide broadband availability. However, the **Appendix** to this report includes important input from key areas (Health, Education, Economic Development, Libraries, and Local Government) that should be considered as Arkansas moves forward.

2. Council Activities:

In the 16 months since its Creation, Broadband Advisory Council activities have included:

- 14 regular monthly meetings
- 2 special meetings dedicated to input from Arkansas broadband stakeholders
- A preliminary report in February to Gov. Beebe, with emailings of the same to every member of the Arkansas General Assembly with an email address posted on the General Assembly web site
- 5 Presentations made by Council members regarding the Arkansas statewide broadband effort:
    - Testimony to the Little Rock field Hearing of the U.S. Senate Commerce Committee (August 2007)
    - Arkansas Municipal League (January 2008)
    - Suddenlink Community Connections 30-minute Television Interview (broadcast repeatedly throughout February 2008)
    - Breakthrough Solutions Conference sponsored by the Community Development staff of the U of A Extension Svc (May 2008)
    - Conference of the Arkansas Association of Users of Telecommunications and Information Systems (June 2008)
- Participation by one or more Council members in a number of national and state broadband-related events
    - Rural Telecommunications Congress annual national conferences (2007 and 2008)
    - Broadband Call with Staff of Sen. Mark Pryor (December 2007)
    - Emerging Issues Policy Forum of legislators, regulators, and others from around the country, which was dedicated to broadband (December 2007 and 2008)
    - Connected Nation presentation to the Council (April 2008)
    - Design Nine broadband workshop in West Memphis sponsored by the Memphis Regional Chamber of Commerce (July 2008)
    - Governor's Summit on Education and Economic Development (October 2008)
    - Several meetings of the Policy Subgroup of the Council
    - Numerous meetings sponsored by Connect Arkansas
    - Numerous meetings of the Arkansas Cyberinfrastructure Advisory Committee
- Development and maintenance of a Broadband Advisory Council web site including such information as:
    - minutes from the Council's regular meetings
    - Council reports
    - and, in cooperation with Arkansas Chief Technology Officer Claire Bailey and her staff and also Ms. Maryce Cunningham of Suddenlink, links to 56

videos of Arkansans giving federal and state testimony as to the needs and issues of broadband in Arkansas
- Reviewed an untold number of broadband-related news articles and broadband initiative publications from other states

3. Recommended Policy to Make Affordable Broadband Accessible to Every Person and Organization in Arkansas:

Broadband must be recognized as essential to the economic development and future prosperity of Arkansas, and as essential to the health and education of its citizens. Broadband must therefore be treated as a critical infrastructure to our state on a par comparable to those of electricity and water to the home. Additionally, state government must provide the leadership to establish Arkansas as a world leader in the leveraging of broadband.

a. Recommended policy provisions:

Provide bi-partisan leadership to leverage broadband for economic development:

Formally recognize broadband as "Critical Infrastructure". For purposes of economic development, education, and quality of life, State government should formally recognize broadband as a "Critical Infrastructure" in Arkansas.

Create a Cabinet-Level Broadband Advocate for Arkansas. In anticipation of new Federal commitment to universal broadband, including the possible appointment of a senior figure to advocate broadband, and the allocation of substantial federal funding to achieve universal broadband, it is recommended that a Cabinet-Level position of Broadband Advocate be created with the following characteristics:

- This position should report directly to the Governor, and should possess powers and responsibilities afforded state agency directors.
- The Broadband Advocate would be state government's champion for the statewide broadband effort, hearing all needs related to Arkansas broadband, and working with state and federal entities to coordinate support for the state broadband effort, including but not limited to the identification and acquisition of grants and other funding for use in the public-private broadband effort in Arkansas.
- This cabinet office would at a minimum include administrative support, and with the advent of substantial federal broadband funding would also include support necessary to oversee the disposition and monitoring of broadband grants.

- A major responsibility of the Broadband Advocate would be the providing of state government support to Connect Arkansas as needed.
- In addition the Broadband Advocate would serve as a conduit to bring stakeholders, recommendations and projects under a single umbrella to address the "big picture" needs of Arkansas' broadband challenges. The Broadband Advisory Council would serve as the advisory council to the Broadband Advocate.

<u>Commit to a two-phased Arkansas broadband effort</u>: The first phase is the on-going 4-year statewide grass roots broadband education and deployment effort to make broadband accessible to all Arkansas homes and businesses not later than 2011. After that initial goal is reached, the second phase of the broadband effort should be a continuing improvement in speed and quality of broadband with the goal of universal broadband that is both capable of supporting the delivery of health, education, and economic development services and is also sufficient to support an Arkansas that is competitive in a world-wide marketplace.

<u>Encourage including broadband in county strategic economic development plans</u>, with the expectation that broadband will be county-wide and tied to county emergency management efforts and funding.

<u>Give priority to county strategic economic development plans that include regional broadband collaborations</u> to assist in situations where counties cannot independently establish broadband business cases county-wide.

<u>Re-define the Arkansas minimum speed for broadband</u>. Act 604 of 2007 should be amended to re-define the state's minimum broadband speed to be 768 kilobits per second in at least one direction, or the minimum speed for broadband as defined by the FCC, whichever is greater.

b. Provide funding:

<u>Fund Connect Arkansas</u>. Pursuant to Act 604 of 2007, Connect Arkansas should continue to be recognized as the non-profit facilitator of the statewide Arkansas broadband effort, and should be reasonably funded in the amount of $2.975 million per year for this purpose for the duration of the next budget cycle. Such funding should not be candidate for reallocation to any recipient other than Connect Arkansas.

<u>Fund Broadband Advocate</u>. Sufficient funding should be provided to sustain the Broadband Advocate and administrative support for that office.

<u>Appropriate potential broadband stimulus funding</u>. The specifics of the economic stimulus package(s) of the next U.S. administration are not yet

known. However, there is significant indication that broadband funding of historic proportions may be a part thereof. Accordingly, it is recommended that legislative appropriations be made contingent on the availability of federal or other funding to support the Arkansas statewide broadband effort, and that such appropriations be sufficient to expend any magnitude of federal or other funding that might be made available for that purpose. Such funds would be releasable at the discretion of the Governor.

Fund the Arkansas Broadband Advisory Council. The sum of $47,500 per year should be allocated to the Arkansas Broadband Advisory Council for use in fulfilling its duties defined in Act 604 of 2007.

APPENDIX

Important Broadband input

During the course of its first 16 months of activity the Arkansas Broadband Advisory Council has received input from many entities that rely on broadband. Accordingly, the items below are provided to assist the State Government in broadband planning.

Assessment of the Arkansas Broadband effort after viewing similar efforts in other states:

The Arkansas broadband approach is strong and comprehensive. Its focus is on universal access by the home and business, but it realizes that this is just the critical first step. It sees that to leverage broadband we must have informal and formal broadband education. It must also include delivery of strong health, education, and economic development broadband services. It must be broadband of a quality and speed that is second to none. Arkansas realizes that provider incentives alone will not achieve these goals, nor will government regulation.

Health:

Existing hospital broadband interconnections are becoming unaffordable because of diminishing federal funding: Arkansas has 84 hospitals connected with high-speed internet (T1 lines). This gives the ability to apply the right medical knowledge rapidly throughout our state. This cannot be achieved any other way because of the scarce number of medical specialists. These high-speed connections are maintained with bio-terrorism funds, but those funds are drying up. Arkansas needs a program to sustain those high-speed connections. Reference: The Arkansas Tele-health Oversight Management Board (ATOM), and Dr. Curtis Lowery, Director of Obstetrics, Department of Obstetrics and Gynecology, University of Arkansas for Medical Sciences.

Opportunities to leverage broadband to make Arkansas #1 in rural health care. Examples of telehealth include:
- Rural access to urban medical specialists
- Remote evaluation and diagnostics
- Remote patient monitoring
- Patient data transmission
- Disaster response
Reference: ATOM, Mr. Bruce Thomasson

Opportunities to address issues related to broadband for rural health and safety.

\-   A statewide electronic medical records initiative would facilitate cooperation between urban and rural medical facilities.

\-   A statewide database of persons with fire department skills would aid in rural medical emergencies as well as disasters

Reference: Mr. Michael Wallace, Business/Technology Consultant, Lavender & Wyatt Systems, Inc.

Education:

Need to provide huge capacity broadband for Arkansas education. Transmission of huge data sets from university high performance computing is essential to an Arkansas knowledge-based economy. It's needed for graduate student training on cutting edge technology, for distance education of PHD and Masters students, and to upgrade current college enrollment of high school students by enabling remote participation in college classes while still in high school, and it is needed soon to compete for some federal funding. Reference: Dr. Mary L. Good, Dean, Donaghey College of Engineering and Information Technology, University of Arkansas, Little Rock.

In one comparison institutions with one of the top 500 super computers each received more than $30 million in federal funding, while those without each received less than $8 million in federal funding. Reference: Dr. Amy Apon, Director, Arkansas Cyberinfrastructure, University of Arkansas, Fayetteville.

Need to provide "grass roots" broadband education: 71-83% of new broadband subscriptions are driven by factors other than the simple availability of broadband. Generally this equates to people becoming aware of the ways in which broadband can benefit them and their households. To leverage broadband for Arkansas economically, educationally, and otherwise, grass roots broadband education must be conducted statewide. Reference: Oklahoma "Broadband Adoption – Why" study by Assistant Professor and Extension Economist Brian Whitacre, Oklahoma State University.

Need to provide formal education and broadband services to support the five core strategies to move a knowledge-based economy ahead in Arkansas. These include:
1 - University-based, job-creating research
2 - Risk-capital availability in all stages of job creation
3 - Entrepreneurship
4 - STEM Education: Science, Technology, Engineering, and Math
5 - Inject existing business with a level of technology to make them anchored in the state

Reference: Accelerate Arkansas, Jerry Adams, past Chair

Need for broadband education and information to the people of Arkansas.
Initiate a state education and information campaign explaining why
broadband is necessary. Reference: Mr. Dave Phillips, Director of
Telecommunications, University of Arkansas Community College at Hope

Opportunity to utilize student organizations in the Arkansas broadband
effort. EAST labs are present in 140 schools found throughout Arkansas.
They are already experienced in community projects, and the 'T' in EAST
stands for technology. The adult citizenry of Arkansas are largely
supportive of and responsive to student activities. EAST and other school
organizations constitute a large pool of organized persons capable of
providing grass roots education and other services to the Arkansas state-
wide broadband effort, and this pool is already largely motivated to
support the spread of broadband. EAST and other school organizations
should be a planned part of the statewide broadband effort. Investment in
EAST for this purpose will dramatically strengthen the statewide
broadband effort, and will at the same time strengthen what is arguably the
best educational approach in the United States. Reference: Mr. Jerry
Prince, Sr. Director of Program Services, EAST Programs.

Economic Development:

Need to address changing broadband demands. It must be remembered
that broadband change is driven by the services offered by broadband.
Arkansas must have broadband responsive to this fact and to resulting
world competition:
-        To achieve broadband equity between rural and urban areas, the
concept of 'reasonable comparability' in rates and services must be
embraced
-        Flat panel high definition TV's are now dominating the market.
The high bandwidth to support high definition video will drive desired
minimum broadband speeds for the home into the foreseeable future.
-        To advance rural Arkansas we must continue to identify, utilize
and monitor the effectiveness of funds such as the Federal Universal
Service Fund and Arkansas High Cost Fund with the goal of advancing
full Statewide Broadband Equity.
Reference: Mr. Paul Waits, President, Ritter Communications.

Need for training business in the use of broadband for international
marketing. Reference: The 2008 Rural Telecommunications Congress
Conference (RTC Conference) reported a similar effort in Georgia.

Opportunity to strengthen eLearning as an Arkansas industry. The RTC Conference reported eLearning to be a $17 billion industry in the U.S.

Opportunity to leverage eCollaboration to reduce business costs. Videoconferencing is practical at DSL and cellular wireless speeds. For many jobs continual videoconferencing alone solves most of the concerns with telecommuting. A company that can use telecommuting effectively can significantly reduce overhead. A state whose industry can use telecommuting on a large scale will be greener, burn less fuel, reduce traffic, see more single parents at home with their children, and experience numerous other advantages.

Need to establish educational curriculums to target eBusiness needs and occupations. For example, establish curriculums to retrain workers to staff call centers in rural Arkansas and other rural areas of the U.S.

Need to work with statewide providers to facilitate affordable backhaul. Small wireless providers have various ideas for creating business cases for providing affordable broadband in sparsely populated areas. Some of these are only limited by the availability of affordable data trunks back to sites where they already have high bandwidth connections to the Internet. Reference: Wireless Internet Service Providers Association (WISPA), Ms. Elizabeth Bowles, President, Aristotle.

Libraries:

Need to strengthen library broadband services. This should provide library training programs on the use of broadband to find work, access online government services, find insurance agents and doctors, shop for affordable clothing and child services, and many other things. It should also insure that all rural community public library facilities are equipped with public computer kiosks with broadband access.

It should also be ready to assist Arkansas libraries as they compete with 8 other states for additional funding from the Bill and Linda Gates Assn. This could include matching state funds. Over 95% of the 235 Arkansas public libraries have Internet access, buy many still lack a true broadband connection. The public libraries have become access points for people without Internet access. During Hurricane Katrina FEMA sent victims to libraries to find area information on the Internet. The IRS sends taxpayers to libraries to find tax information on the Internet. Thanks to the Bill and Melinda Gates Foundation, nearly every Arkansas public library has had computers with Internet access for the past ten years, and additional Foundation funding would insure adequate broadband access for all public libraries. However, we don't know the facts yet about the upcoming competition with other states. We also don't know whether there will be

sustainability of funding even if Arkansas is successful in the competition. Providing the money for one year and expecting libraries to squeeze subsequent funding out of limited budgets would not be realistic. However, if we can get more state aid for public libraries which are earmarked to sustain these connections, that is something we (public libraries) would hope for. Reference: Ms. Carolyn Ashcraft, Arkansas State Librarian.

Need to promote awareness of locations with public access to broadband, such as Workforce Investment Centers, libraries, etc.

State, County, and Municipal government:

Need to encourage county and municipal broadband use (e-government, e-commerce, e-services, state portal expansion, regional web history, etc.) Reference: Mr. Dave Phillips, Director of Telecommunications, University of Arkansas Community College at Hope

Need to look for creative ways to help Counties to fund broadband efforts, such as helping them issue bonds to fund such efforts.